

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION**

VIR2US, INC.

Plaintiff and Counterclaim Defendant

V.

**INVINCEA, INC. and
INVINCEA LABS, LLC**

Defendants and Counterclaim Plaintiffs

CIVIL ACTION NO. 2:15-cv-00162
HCM-LRL

PLAINTIFF VIR2US, INC.'S OPENING CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

Plaintiff Vir2us, Inc. (“Vir2us”) brought this action against Defendants Invincea Inc. and Invincea Labs, LLC (collectively “Invincea”) for infringing U.S. Patent No. 7,392,541 (“the ’541 patent”) and U.S. Patent No. 7,536,598 (“the ’598 patent”) (collectively the “Vir2us Asserted Patents”). The Vir2us Asserted Patents generally relate to Vir2us’s innovative technology that protects computers against various forms of malicious attacks and viruses. For each of the disputed claim terms in the Vir2us Asserted Patents, Vir2us proposes constructions that are consistent with, and supported by, the claims themselves and the intrinsic record. Invincea’s proposed constructions, however, seek to improperly narrow the claim terms contrary to both the specification and the plain and ordinary meaning in violation of several canons of claim construction. Additionally, Invincea argues that another six (6) claim terms in the Vir2us Asserted Patents are indefinite. However, four of the six terms that Invincea now argues are indefinite are not included in Invincea’s Preliminary Invalidity Contentions and are therefore not properly raised under the Court’s Scheduling Orders. Further, Invincea has not articulated a basis for why any of the additional six claims are indefinite. Thus, Invincea’s indefiniteness arguments fail both procedurally and substantively and fall far short of overcoming the presumption of validity with clear and convincing evidence.

Invincea counterclaimed by asserting its own later-filed patent, U.S. Patent No. 8,839,422 (“the ’422 patent” or “the Invincea Asserted Patent”). There are three disputed claims in the ’422 patent. Again, Vir2us’s proposed constructions are consistent with and supported by the intrinsic record. Invincea’s proposed constructions are contrary to the specification and the claim language and should be rejected. One of the three disputed claim terms in the Invincea Asserted Patent is indefinite.

For all of these reasons, Vir2us respectfully requests that the Court adopt its proposed constructions and reject Invincea's proposed constructions and indefiniteness arguments.

II. LEVEL OF ORDINARY SKILL IN THE ART

The Vir2us Asserted Patents relate to Vir2us's innovative technology that protects computer systems from various forms of malicious intrusions and attacks such as viruses, malware, spyware, and other intentionally harmful software. Invincea contends that its patent, the '422 patent, covers technology that also protects computers from malicious intrusions and attacks.

It is well-settled that claim terms are to be construed from the viewpoint of one of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc); *see also Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007) (listing the factors used to determine the level of ordinary skill). Considering all of the *Daiichi* factors in the context of the technology of the Vir2us Asserted Patents and the Invincea Asserted Patent, one of ordinary skill in the art in the relevant time frame would be one who possesses knowledge of computer architecture, operating systems, and security gained through the study of at least one to two years of college-level computer science or computer information technology courses or through at least four years of practical work experience in a computer information or security technology related field.¹

¹ See Declaration of Jonathan L. Krein In Support of Vir2us, Inc.'s Opening Claim Construction Brief ("Krein Decl.") at ¶¶23-24.

III. LEGAL STANDARDS

A. Claim Construction Principles

The principles of claim construction are well established. Claim terms are to be given their “ordinary and customary meaning,” as determined by “a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1312-13. When construing the claims, the Court first considers intrinsic evidence, including the claims themselves, the remainder of the specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996); *see also Phillips*, 415 F.3d at 1315-17. Although this allows the Court to construe claims with guidance from the patent specification, *Phillips*, 415 F.3d at 1317, the Court should not go so far as to write the specification into the claims. *Id.* at 1322. A claim construction that “excludes the preferred embodiment is rarely, if ever, correct.” *Adams Respiratory Therapeutics, Inc. v. Perrigo Co.*, 616 F.3d 1283, 1290 (Fed. Cir. 2010) (internal quotations and citations omitted). Conversely, the Federal Circuit “has expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” *Hill-Rom Servs. v. Stryker Corp.*, 755 F.3d 1367, 1371-1372 (Fed. Cir. 2014) (citation omitted) (collecting cases). Indeed, “[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using ‘words or expressions of manifest exclusion or restriction.’” *Id.* (citation omitted).

B. Means-Plus-Function Under 35 U.S.C. § 112(6)

In evaluating whether or not 35 U.S.C. § 112(6) applies to a particular claim term, “[t]he standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Williamson v. Citrix Online*

LLC, 792 F.3d 1339, 1349-1350 (Fed. Cir. 2015). It remains settled law that “the failure to use the word ‘means’ . . . creates a rebuttable presumption . . . that § 112, para. 6 does not apply.” *Id.* at 1348. *Williamson* left intact the presumption as applied before the *Lighting World* decision in Sept. 2004. *Id.* at 1349 (referencing *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354 (Fed. Cir. 2004)). Sufficient structure may exist to avoid § 112(6) where a structural definition is provided in the specification or is known in the art. *See Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1299 (Fed. Cir. 2014) (“heuristics” term described sufficient input and output to avoid § 112(6)). “Structure may also be provided by describing the claim limitation’s operation, such as its input, output, or connections.” *Id.*

C. Indefiniteness

A party seeking to invalidate a patent bears the heavy burden of proving invalidity by clear and convincing evidence. 35 U.S.C. § 282; *Microsoft Corp. v. i4i Ltd. Partnership*, 131 S. Ct. 2238, 2246 (2011). The Supreme Court has “read [35 U.S.C.] § 112, ¶ 2 to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014).

IV. ARGUMENT

A. U.S. Patent 7,392,541

The ’541 patent discloses a software or hardware switching system to couple and decouple a processing logic device to a first storage and a second storage based on the type of program instruction that the processing logic device is executing. This provides the ability to isolate one of the storages from program instructions capable of executing “untrusted content” and protect this storage from being corrupted, for example, through the introduction of a virus or other malicious software.

1. “dynamically configurable” (claim 10)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
No construction necessary / Plain and ordinary meaning	with a configuration that can be altered to utilize certain physical components

Vir2us contends that no construction is necessary as the jury should have no difficulty understanding the plain and ordinary meaning of the term. “Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.” *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). “[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008); *see also Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) (“Unlike *O2 Micro*, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”).

Invincea’s proposed construction, which adds extraneous and improper limitations that confuse the plain and ordinary meaning, is incorrect because Invincea violates the canons of claim construction by improperly importing limitations from the specification into the claims and excluding the preferred embodiment. A well-known canon of claim construction states that a construction that “excludes the preferred embodiment is rarely, if ever, correct.” *Adams*, 616 F.3d at 1290 (internal quotations and citations omitted). Here, Invincea’s proposal limits the dynamic configuration to only physical components, but the patent specification clearly describes the use of both hardware and software components (*i.e.*, non-physical components). Specifically, the patent explains that “[t]he general switch system may be implemented in

hardware, software, and/or a combination of hardware and software.”² Similarly, the patent also explicitly states that switch, switches, and like terms should be given their “broadest possible interpretation” and include “any device, logic, hardware, or software that either physically or logically couples or decouples a signal from one location to another location or that enables or disables an ability to communicate a signal between such locations independent of whether an electrical or optical connection exists or may exist.”³ Thus, Invincea’s proposal should be rejected, and this claim term should be afforded its plain and ordinary meaning.

2. “processing logic device” (claims 1-3, 7-13, 15-16)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
No construction necessary / Plain and ordinary meaning	hardware circuitry capable of executing electronic instructions

The term, “processing logic device” should be given its plain and ordinary meaning and need not be construed. It is apparent on its face that the term describes a device for processing computer instructions. The jury will have no difficulty understanding the meaning of this term. Further, Invincea’s proposed definition does not provide any additional explanation that would assist the jury in better understanding the term, and in fact, is far more confusing than the simple term itself. Invincea’s proposal should be rejected and this term should be given its plain and ordinary meaning.

3. “microprocessor” (claims 3, 7-8, 16)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
No construction necessary / Plain and ordinary meaning	a general purpose processing logic device formed on one or more integrated circuits

² Krein Decl., Ex. B (’541 patent) at 11:67-12:2. *See also, e.g., id.*, 30:67-31:14.

³ Krein Decl., Ex. B (’541 patent) at 47:65-48:6.

The term “microprocessor” should also be given its plain and ordinary meaning and need not be construed. This common term is readily understood as a general purpose device for processing computer instructions and the jury will have no difficulty understanding the meaning of this term. Indeed, microprocessors are prevalent in most consumers’ everyday lives. For example, the microprocessors inside most computers, smartphones, and other electronic devices are one of the key features marketed to consumers. Invincea’s proposed construction is not helpful to the jury and is more confusing than the term itself and thus should be rejected and this term should be given its plain and ordinary meaning.

4. “couple” / “decouple” / “coupling” / “decoupling” / “coupled” / “coupleable” (claims 1-2, 8, 11-12, 16)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
No construction necessary / Plain and ordinary meaning	<p>“couple” – associate (association) of two circuits or systems in such a way that power or information may be transferred from one to the other</p> <p>“decouple” – to separate (joined or coupled subsystems) thereby enabling them to exist and operate separately</p>

These terms should be given their plain and ordinary meaning and need not be construed. The jury will have no difficulty understanding the meaning of “couple” and “decouple,” particularly in light of the claim language. For example, claim 1 recites that a processing logic device may be “restrictively coupled to communicate known information with the first storage.”⁴ It is plain on its face that coupling is to enable the communication of information between the processing logic device and a storage. Invincea’s proposed definition does not

⁴ Krein Decl., Ex. B (’541 patent) at 69:31-33.

provide any additional explanation that would assist the jury in better understanding the term and instead only further complicates the meaning of the term with imported, extraneous limitations unsupported by the specification. In fact, nowhere in the specification is there any description that “decoupling” enables subsystems to exist and operate separately. Invincea’s attempt to limit the patent claim should be rejected and this term should be given its plain and ordinary meaning.

5. “storage” / “data store” (claims 1-2, 6, 8, 10-13, 16)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
No construction necessary / Plain and ordinary meaning; alternatively, if the Court determines a construction is necessary: an area of memory to store data	a portion of physical memory device (or devices) separate from other stores or storages

The terms “storage” and “data store” should be given their plain and ordinary meaning and need not be construed. The jury will have no difficulty understanding the meaning of these terms in the context of everyday computing. Invincea argues that the terms “storage” and “data store” should be given constructions, but Invincea’s proposed construction does nothing to help the jury better understand either term. Instead, Invincea adds extraneous and improper limitations that further confuse the plain and ordinary meaning of the terms. Specifically, there is nothing in either the claims or the specification that requires a “storage” or “data store” to be separate from another store or data store as Invincea’s proposed construction would require. Accordingly, Invincea’s proposed construction should be rejected.

While the jury will have no difficulty understanding the meaning of “storage” or “data store” in the context of computers, if the Court believes that a construction is necessary, the proper definition in accordance with the specification is “an area of memory to store data.” Indeed, the specification states that a “data store is representative of a memory area.”⁵

⁵ See, e.g., Krein Decl., Ex. B (’541 patent) at 19:32-41, Fig. 3.

6. “switching system for selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control” (claims 1-2, 8)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
Not subject to 112(6). Plain and ordinary meaning.	<p>Subject to 112(6).</p> <p>Function: selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control</p> <p>Corresponding Structure: (1) system switching controller unit 2138, switch configuration information storage 2139, first switch 2124, second switch 2125; or (2) system switching controller unit 2138, switch configuration information storage 2139, switch 2164, switch 2165; or (3) system switching controller unit 2138, switch configuration information storage 2139, switch 2174, switch 2175; or (4) system switching controller unit 2138,</p>

This term is not subject to 35 U.S.C. 112(6). Section 112(6) is presumed not to apply because the claim does not use “means for” language. *Williamson*, 792 F.3d at 1350; *Motorola*, 757 F.3d at 1298. For claims that lack “means” language, Invincea must rebut this presumption. To do so, the proper inquiry is to determine whether “switching system” would be understood by a person of ordinary skill in the art (“POSITA”) to have a sufficiently definite meaning as the name for a structure or class of structures. *Motorola*, 757 F.3d at 1298-1300. If so, 112(6) has no application. All that it requires is a class of structures; a single well defined structure is not necessary to avoid the application of 112(6). *Id.* at 1300; *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1582 (Fed. Cir. 1996). To make this assessment, the Court must consult the specification and other claim language to interpret the claim from the perspective of a POSITA. *Id.* A sufficiently definite structure can be provided by the usage of the claim term in the specification, even for generic and “nonce” words,” or its meaning in the art. *Id.*

Invincea’s argument that this claim term is subject to 112(6) is an improper attempt to incorporate a physical limitation into a “switching system” when the specification makes clear

that “switching system” extends beyond physical switches. It is clear that “switching system” would be understood by a POSITA as the name for a class of structures based on the specification, commonly understood meaning in the art, and other claim limitations of claim 1. Thus, 112(6) has no application. *Motorola*, 757 F.3d at 1296-1297.

First, the specification confirms that “switching system” would be understood by a POSITA as the name for a class of structures.⁶ The specification explains that a “general switch system may be implemented in hardware, software, and/or a combination of hardware and software.”⁷ Thus, the specification makes clear that a “switching system” – can be 1) implemented in hardware; 2) implemented in software; or 3) implemented as a combination of hardware and software. Indeed, a POSITA would understand that a “switching system” is the name for a class of structures that includes hardware, software, and hardware/software structures to enable and disable communication between the CPU and storage when interpreting “switching system” in light of the specification as required.⁸ Moreover, Invincea’s proposed 112(6) construction and attempt to limit the “switching system” to only the corresponding physical structures disclosed in the specification further underscores that 112(6) should not apply in the first place. Certainly, a POSITA would understand a “switching system” as a term with structural meaning rather than a nonce word.⁹

Second, consistent with the specification, a POSITA would understand “switching system” as the name for a class of structures that include physical and logical switching based on

⁶ See Krein Decl. at ¶¶33-39.

⁷ Krein Decl., Ex. B (’541 patent) at 11:67-12:2.

⁸ Krein Decl., ¶¶34-39.

⁹ Krein Decl., ¶37.

its commonly understood meaning in the art and everyday usage.¹⁰ Indeed, it is well known in the art that some hardware or software structure is required to couple and decouple the processing logic device from the first and second storages.

Third, the language of the claims themselves provide structure to a “switching system” by describing the operation of the “switching system” and its relationship to other claim elements. Claim 1 recites that the “switching system” couples and decouples the processing logic device to the first and second storages upon receipt of a control signal. This clearly defines the structure of the “switching system.” The “switching system” must receive a control signal and modify the accessibility of the first and second storage in response. This confirms that a POSITA would understand a “switching system” to be the name of a class of hardware and/or software structure to enable or disable communication between the processing logic device and storages.¹¹

For all of these reasons, the term “switching system” is not subject to 112(6). Indeed, a person of ordinary skill in the art would understand this claim term to connote a class of structures to enable and disable communication between a processing logic device and storage.

7. “untrusted content” (claims 1, 12)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
Not indefinite	Term of degree for which Invincea contends no boundaries are provided by the specification

Invincea alleges that “untrusted content” is indefinite because somehow it is a term of degree “for which no boundaries are provided by the specification.” Invincea provides no further explanation of its indefiniteness theory because its theory defies common sense. First, “untrusted content” is not subjective or a term of degree at all. Common sense requires that

¹⁰ Krein Decl. ¶39.

¹¹ Krein Decl., ¶32.

content that is not trusted is “untrusted content.” Second, the specification confirms the obvious and describes a binary distinction between content that is trusted and content that is not (i.e. untrusted content).¹² For example, the specification explains “[i]f the file is unknown or untrusted it may be labeled for example ‘untrusted’, whereas if the file was created from within in a pristine environment, the control environment may label the file as ‘trusted’.”¹³ When properly considering “untrusted content” in light of the specification and other claim limitations a POSITA would understand this term with at least reasonable certainty.¹⁴ *Nautilus*, 134 S. Ct. at 2129.

This is further confirmed when considering “untrusted content” in the context of the claims. *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1346 (Fed. Cir. 2007). Claims 1 and 12 control whether a processing logic device may be coupled to a first or second storage based upon whether the processing logic is loaded within an instruction that is capable of executing a data item that has “untrusted content.” The claims permit the processing logic device to be coupled to the second storage when capable of executing “untrusted content” but either deny (i.e. may not be coupled) or limit access (i.e. restrictively coupled) to the first storage. Limiting access in this manner eliminates or reduces the potential for untrusted data to corrupt or harm the first data storage. Accordingly, a POSITA would have no difficulty understanding the scope of claims 1 and 12 including “untrusted content” when considering this term in the light of the specification and other claim limitations.¹⁵

¹² Krein Decl., ¶32

¹³ Krein Decl., Ex. B (’541 patent) at 65:60-64.

¹⁴ Krein Decl., ¶32.

¹⁵ Krein Decl., ¶32.

8. “may not be coupled or only restrictively coupled to communicate” (claim 1)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
Not indefinite.	Unintelligible ¹⁶

Invincea argues that this claim term is “unintelligible” but has not provided any explanation to support this contention during any of the meet and confers or exchanges prior to filing the opening brief. The meaning of this claim term is clear. It provides two simple alternatives, one where the processing logic device may not be coupled to the first storage and another where the processing logic device may only be restrictively coupled. A POSITA would have no difficult understanding this claim term with at least reasonable certainty based on the other limitations and claim 1 and description in the specification.¹⁷ This claim term is not indefinite. *Nautilus*, 134 S. Ct. at 2129.

9. “and automatically erased after each processing has occurred independent if the processing completed with error condition or without error condition” (claim 11)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
Not indefinite.	Unintelligible ¹⁸

Invincea also alleges this term is “unintelligible” but – again – fails to provide any explanation. Invincea appears to challenge the grammar of this claim term instead of performing the correct indefiniteness analysis – considering how a POSITA would understand this claim term in light of the other claim limitations and specification. *Young*, 492 F.3d at 1346. A

¹⁶ Invincea did not allege that this term was indefinite in its Preliminary Invalidity Contentions and has not sought leave to amend its Preliminary Invalidity Contentions. Therefore, this issue is not properly raised before the Court in this *Markman* proceeding.

¹⁷ Krein Decl., ¶¶30-31.

¹⁸ Invincea did not allege that this term was indefinite in its Preliminary Invalidity Contentions and has not sought leave to amend its Preliminary Invalidity Contentions. Therefore, this issue is not properly raised before the Court in this *Markman* proceeding.

POSITA would have no difficulty understanding the scope of this claim term with at least reasonable certainty notwithstanding any alleged grammatical deficiencies.¹⁹ In fact, the meaning of this claim term is beyond reasonable debate. A POSITA would understand “and automatically erased after each processing has occurred independent if the processing completed with error condition or without error condition” to mean that the second storage is always automatically erased after processing has completed — irrespective of whether there was an error condition.²⁰ The specification explains that storages may be automatically erased or reformatted to ensure that there is no residual contamination to permit subsequent operations to commence in an environment that is free from contamination or malicious code.²¹ This is clearly encompassed by this term and would be understood by a POSITA with at least reasonable certainty. For these reasons, this claim term is not indefinite.

B. U.S. Patent No. 7,536,598

The '598 patent discloses a software or hardware system to couple and decouple data storages to prevent corruption and limit the harm caused by potential corruption. Claim 62 recites a system operable to decouple a processing environment from a corrupted data store and couple the processing environment to another data store to limit the potential damage caused by the corruption. Similarly, claim 66 recites a system that isolates a storage containing pristine files from another storage that is for general use so as to isolate and prevent corruption of the first storage and its pristine files.

¹⁹ Krein Decl., ¶¶28-29.

²⁰ Krein Decl., ¶¶28-29.

²¹ Krein Decl., Ex. B ('541 patent) at 4:53-5:2, 8:1-17, 11:20-30.

1. “data store switch” (claim 62)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
No construction necessary / Plain and ordinary meaning; alternatively, if the Court determines a construction is necessary: software or hardware that controls access to a data store	a physical device for connecting or disconnecting a data store

This term requires no construction and should be given its plain and ordinary meaning. The jury will have no difficulty understanding the meaning of a “data store switch” in the context of computers nor will it have any difficulty understanding the meaning for the common, everyday word, “switch.”

Invincea’s proposed construction is incorrect and violates the canons of claim construction, as it improperly imports limitations from the specification into the claims and reads out the preferred embodiment. For instance, a claim construction that “excludes the preferred embodiment is rarely, if ever, correct.” *Adams*, 616 F.3d at 1290 (internal quotations and citations omitted). Here, Invincea’s proposed construction limits the switch to only physical one, but the patent specification clearly describes the use of both hardware and software switches. For example, the specification explicitly states: “The switching of a data store may be logical or physical. Logical switching is switching enforced purely by software.”²² Additionally, the specification explains that “[t]he switching of the data stores 62, 64 may be done under manual, hardware or software control.”²³ Moreover, the specification states that “data storage devices . . . may be modified so that they may be physically switched in hardware and/or software.”²⁴ Thus, Invincea’s proposed construction should be rejected.

²² Krein Decl., Ex. C (’598 patent) at 7:11-12.

²³ Krein Decl., Ex. C (’598 patent) at 12:26-27.

²⁴ *See, e.g.*, Krein Decl., Ex. C (’598 patent) at 70:54-62.

Nonetheless, if the Court believes that a construction is necessary, the proper definition in accordance with the specification as described above is “software or hardware that controls access to a data store.”

2. “couple” / “decouple” / “coupling” / “decoupling” / “coupled” (claims 62, 66)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
No construction necessary / Plain and ordinary meaning	<p>“couple” – associate (association) of two circuits or systems in such a way that power or information may be transferred from one to the other</p> <p>“decouple” – to separate (joined or coupled subsystems) thereby enabling them to exist and operate separately</p>

For the same reasons set forth for these terms in the ’541 patent above, the terms should be afforded their plain and ordinary meaning. Moreover, as with the ’541 patent, here the claim language itself provides further context for the jury to understand these terms consistent with their plain and ordinary meaning.²⁵ Invincea’s proposed definition does not provide any additional explanation that would assist the jury in better understanding the term and instead only further complicates the meaning of the term with extraneous limitations unsupported by the specification. Invincea’s proposed definitions should be rejected.

3. “data storage” (claim 66)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
No construction necessary / Plain and ordinary meaning; alternatively, if the Court determines a construction is necessary: an area of memory to store data	a portion of a physical memory device (or devices) separate from other stores or storages

²⁵ See, e.g., Krein Decl., Ex. C (’598 patent) at 90:20-33 (“decoupling the processing environment from the second data storage and copying selective data from the first data storage to the second data storage”).

For the same reasons set forth for the terms, “storage” and “data store,” in the ’541 patent above, this term should be afforded its plain and ordinary meaning. Similarly, to the extent that the Court believes a construction is necessary for this term, the proper definition in accordance with the patent specification is “an area of memory to store data.”²⁶

4. “correct health” and “corruption health” (claim 62)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
Not indefinite	Term of degree for which Invincea contends no boundaries are provided by the specification ²⁷

Invincea alleges that these terms are indefinite because they are terms of degree “for which no boundaries are provided by the specification.” Invincea’s allegations should be rejected because these are not terms of degree and would be understood with at least reasonable certainty by a POSITA.²⁸ Claim 62 recites that a health of a data store that may be “selected from a group of healths consisting of: a corruption health and a correct health.” Obviously, if the health of a data store is determined not to be in a state of “corruption health” it must necessarily be in the “correct health” because claim 62 does not permit any other possibilities. Thus, “corruption health” or a “correct health” are neither terms of degree nor are they subjective.

Moreover, a POSITA would clearly understand both of these claims when properly considering them within claim 62 itself and the specification. The specification makes it clear that the health of a data store is its current state of operation and that when a data store is

²⁶ See, e.g., Krein Decl., Ex. C (’598 patent) at 37:14-22, 63:66-64:5, 72:8-11.

²⁷ Invincea did not allege that “corruption health” was indefinite in its Preliminary Invalidity Contentions and has not sought leave to amend its Preliminary Invalidity Contentions. Therefore, “corruption health” is not properly raised before the Court in this *Markman* proceeding.

²⁸ Krein Decl., ¶¶ 43-44.

corrupted (*e.g.*, improperly modified by malicious code) it has a corruption health.²⁹ Otherwise, the data store has a “correct health” for the purpose of claim 62. There is no uncertainty about the scope of “corruption health” or “correct health” as used in claim 62 of the ’598 patent.

Accordingly, this term is not indefinite.

5. “if said correct health then said data store switch remains is not altered” (claim 62)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
Not indefinite.	Unintelligible ³⁰

Again, Invincea alleges but does not explain why this claim term is “unintelligible.” The meaning of this term is clear when considered in the context of claim 62 and the specification of the ’598 patent. Claim 62 recites a computer program to analyze an accessible data store to determine “a health of said accessible data store.” As explained above, the health of the accessible data store recited in claim 62 can either be in “corruption health” or in “correct health.” The system of claim 62 first determines whether the data store has a “corruption health” and, if so, decouples the processing environment from the “accessible data store” and couples it to a “second accessible data store.”³¹ Switching from a corrupted data store to a second accessible data store operates to limit the potential harm that can be caused by the corrupted data store (*e.g.* limits the harm caused by a malicious code).³² Alternatively, if the data store is not in

²⁹ Krein Decl., Ex. C (’598 patent) at 14:38-58, 5:59-61, 6:45-50; Krein Decl., ¶44.

³⁰ Invincea did not allege that this term was indefinite in its Preliminary Invalidity Contentions and has not sought leave to amend its Preliminary Invalidity Contentions. Therefore, this issue is not properly raised before the Court in this *Markman* proceeding.

³¹ Krein Decl., ¶46.

³² Krein Decl., Ex. C (’598 patent) at 14:38-58, 18:15-25 (“[b]y switching . . . data storage devices can be can be isolated . . . Thus if a hacker or virus were to enter a data storage device that was connected to a network, said hacker or virus could only access one of the data storage device(s).”

a state of “corruption health” it must necessarily be in a state of “correct health” because claim 62 does not permit any other possibilities. Of course, claim 62 recognizes that if the data store is in a correct health no intervention is required and the system can continue operation. This is exactly what “if said correct health then said data store switch remains is not altered” recognizes by specifying that the data store switch remains unaltered so that the processing environment remains coupled to the accessible data store. Invincea’s indefiniteness allegations appear to attack the grammar of this claim element but the result is clear – a person skilled in the art would understand the scope of this claim term with at least reasonable certainty when properly considered in light of the other claim elements of claim 62 and the specification of the ’598 patent.³³

C. U.S. Patent No. 8,839,422

The ’422 patent discloses a virtual browsing environment to execute a web browser that can be terminated upon the detection of potentially malicious activity such as from visiting a certain website. When the virtual browser environment and web browser within it are terminated the website address of the potentially malicious website that was visited is transmitted over a network to a computer server.

1. “virtual browsing environment” (claims 1-6, 9-10, 20)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
A virtual execution environment specifically for a web browser	An execution environment for isolating the execution of any type of application

The parties agree that this term should be construed and agree that a “virtual browsing environment” is an execution environment. The parties, however, disagree as to the type of application executed inside the browsing environment. While Vir2us proposes a construction

³³ Krein Decl., ¶¶ 45-46.

that is consistent with – and supported by – the claims and specification, Invincea’s construction seeks to improperly broaden the scope of the claims by ignoring key terms.

The claims recite, in relevant part, the following steps:

- “[u]pon initiation of at least one **browser** application, creating at least one virtual **browsing** environment with at least one operating system and executing the at least one **browser** application within the at least one virtual **browsing** environment;”³⁴ and
- “transmitting information to at least one collection computer . . . the information including at least one **website** address and an indication of an operation of the at least one operating system **when the at least one browser application executed within the at least one virtual browsing environment accessed at least one website at the at least one website address.**”³⁵

This claim language shows that the “virtual browsing environment” is limited to a browser application. In fact, as recited in claims 1 and 20, the “virtual browsing environment” is only created upon initiation of the “browser application.” The claims also recite a “website address,” which further confirms that the patentee contemplated only a web browser application, including, as set forth in the specification, the well-known web browsers Microsoft Internet Explorer, Mozilla Firefox, Google Chrome or Apple Safari.³⁶ According to the claims, no other type of application except a web browser is operable to access a website (*i.e.*, the “browser application executed within the at least one virtual browsing environment accessed at least one website at the at least one website address”).³⁷ Thus, a person of ordinary skill in the art would understand that browsing in the context of the ’422 patent is accomplished using only a web browser, and Vir2us’s proposed construction should be adopted.

³⁴ Krein Decl., Ex. D (’422 patent) at 18:60-67 (emphasis added).

³⁵ Krein Decl., Ex. D (’422 patent) at 19:9-18, 22:7-17 (emphasis added).

³⁶ Krein Decl., Ex. D (’422 patent) at 4:53-65; *see id.* at Abstract (“An embodiment for providing a secure virtual browsing environment . . . executing the browser application within the virtual browsing environment.”).

³⁷ Krein Decl., Ex. D (’422 patent) at 19:16-18.

Invincea’s proposal improperly broadens the virtual browsing environment to one “for isolating the execution of *any type of application*.” Invincea’s sole support for its proposed construction are excerpts from the specification suggesting that the “embodiments may be used with other types of applications” or that the “[virtual browsing environments] may be used to isolate the execution of any type of application.”³⁸ But these excerpts have no bearing on the construction of “virtual browsing environment” as used in claims 1-6, 9-10, and 20 given the unequivocal claim language discussed above. Had the patentee intended to broaden the “virtual browsing environment” in these claims to include “any type of application,” the patentee would have drafted the claims accordingly. The patentee did not. Invincea’s proposed construction, which seeks to improperly broaden the claims, is at odds with the claim language and should be rejected. *Renishaw PLC v. Marposs Societa’ Per Anzioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998) (“The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction”).

2. “an indication of an operation of the at least one operating system” (claims 1, 20)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
Indefinite	Plain and ordinary meaning.

This claim term is indefinite because a person skilled in the art would not understand its scope with reasonable certainty. *Nautilus*, 134 S. Ct. at 2129. First, the term “an indication of an operation of the at least one operating system” does not have an established meaning in the art.³⁹ Second, the specification does not describe or provide any support for transmitting “an indication

³⁸ Krein Decl., Ex. D (’422 patent) at 18:1-11.

³⁹ Krein Decl., ¶51.

of an operation of the at least one operating system” to a collection computer.⁴⁰ Instead, this unbounded claim term appears for the first time in claims 1 and 20 leaving a person skilled in the art at a loss to determine its scope with reasonable certainty. It is clear that “an indication” must be something different than “an operation of the at least one operating system” itself yet the specification and the claims fail to provide any basis for a POSITA to distinguish between an indication of an operation and the operation itself.⁴¹

The only related description in the specification fails to provide objective boundaries to constrain the scope of this claim term. The specification describes a virtual control application (VCA) that is included within the kernel of the host operating system that collects and sends information to a collection computer after terminating components of the computer due to “potential[ly] malicious activity.”⁴² The virtual browsing environment is described as being executed within a virtualized or guest operating system.⁴³ The specification also provides that “[t]he collected information may also include forensic information about what the potential malicious activity did while running in the VBE 208 (e.g., all reads and writes performed on any files, all modifications or attempted modifications to registry entries, and all network communications).”⁴⁴ However, the specification fails to articulate whether these actions relate to the host or guest operating system or whether these are “operating system operations” at all.⁴⁵ This description still fails to provide sufficient guidance to enable a POSITA to understand the

⁴⁰ Krein Decl., ¶¶51-53.

⁴¹ Krein Decl., ¶¶51-53.

⁴² Krein Decl., Ex. D (’422 patent) at Fig. 2, 3:7-27, 14:42-48.

⁴³ Krein Decl., Ex. D (’422 patent) at 4:24-52.

⁴⁴ Krein Decl., Ex. D (’422 patent) at 15:5-9.

⁴⁵ Krein Decl., ¶51, 53.

scope of an “indication” “of an operation of the at least one operating system” with reasonable certainty. In sum, because a POSITA cannot understand the scope of an “indication” of “of an operation of the at least one operating system” or distinguish and “indication” of an operation of the at least one operating system from the operation itself with reasonable certainty, this term is indefinite.

3. “collection computer” (claim 1)

Vir2us’s Proposed Construction	Invincea’s Proposed Construction
A computer server connected over a network	Plain and ordinary meaning to one of ordinary skill in the art or, if construction required: A device for receiving collected information

The Court should adopt Vir2us’s proposed construction of a “collection computer” as “a computer server connected over a network.” This is helpful to the jury, strongly supported by the specification, and claim 1 itself. Claim 1 recites “transmitting information” from the computer executing the instructions contained on a processor readable medium to a separate “collection computer.” The specification clearly describes the “collection computer” and computer executing the claimed instructions as separate computers connected over a network.⁴⁶ The functionality of the “collection computer” described in the specification confirms that a POSITA would interpret a “collection computer” to be a computer server. For example, the specification describes that the collection computer may include server software, such as, “MySQL server” or “other web-based database server systems.”⁴⁷ Similarly, the collection computer is described as having the capability to identify malicious activity present on a network, and to receive information from multiple computers to provide a “distributed

⁴⁶ See, e.g., Krein Decl., Ex. D (’422 patent) at Fig. 1, 2:9-14, 26-28.

⁴⁷ Krein Decl., Ex. D (’422 patent) at 2:39-42.

continuous malicious activity detection system.”⁴⁸ These are functionalities that a POSITA would understand are possessed by a computer server. Additionally, a computers server or simply a server are terms used by jurors in everyday parlance and accordingly Vir2us’s proposed construction would be helpful to the jury at trial.

V. CONCLUSION

For the foregoing reasons, the Court should adopt Vir2us’s proposed constructions and reject Invincea’s unsupported proposed constructions and unsupported and untimely indefiniteness allegations.

In the ’541 patent, the terms “dynamically configurable,” “processing logic device,” “microprocessor,” “couple” / “decouple” / “coupling” / “decoupling” / “coupled” / “coupleable,” and “storage” / “data store” should be accorded their plain and ordinary meaning. Additionally, the Court should find the terms “untrusted content,” “may not be coupled or only restrictively coupled to communicate,” “and automatically erased after each processing has occurred independent if the processing completed with error condition or without error condition” are not indefinite. Similarly, the Court should find that 112(6) does not apply to “switching system for selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control.”

In the ’598 patent, the terms “data store switch,” “couple” / “decouple” / “coupling” / “decoupling” / “coupled” and “data storage” should be accorded their plain and ordinary meaning. The Court should also find the terms “correct health,” “corruption health,” and “if said correct health then said data store switch remains is not altered” are not indefinite.

⁴⁸ Krein Decl., Ex. D (’422 patent) at 15:37-62.

In the '422 patent, the Court should find the term “an indication of an operation of the at least one operating system” is indefinite. Additionally, “virtual browsing environment” should be construed as “a virtual execution environment specifically for a web browser” and “collection computer” should be construed as “a computer server connected over a network.”

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Respectfully Submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on December 23, 2015, I will electronically file the foregoing with the Clerk of Court using the CM/ECF system, which will send a notification of such filing (NEF) to the following:

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